

MEETING OF THE ENVIRONMENT POLICY COMMITTEE AT MINISTERIAL LEVEL

20-21 April 2004

AGENDA ISSUES PAPER



AGENDA

ENVIRONMENT POLICY COMMITTEE AT MINISTERIAL LEVEL

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20-21 April 2004
OECD Headquarters

IMPLEMENTATION OF THE OECD ENVIRONMENTAL STRATEGY FOR THE FIRST DECADE OF THE 21ST CENTURY

Chair: Martin Cullen, T.D. (Ireland)
Vice-Chair: Lena Sommestad (Sweden)

1.	<i>Tuesday, 20 April 9h30</i>	Statements by the Chair (Martin Cullen, T.D., Minister for the Environment, Heritage and Local Government, Ireland) and the OECD Secretary-General (Donald Johnston)
2.	<i>9h40</i>	Session I Assessment and Reporting: Are We on Track for Implementing the OECD Environmental Strategy? Lead speakers: Shuichi Katoh (Japan) Lena Sommestad (Sweden)
		Endorsement of the Draft Recommendation of the Council on the Use of Economic Instruments in Promoting the Conservation and Sustainable Use of Biodiversity
3.	<i>13h00</i>	Working Lunch OECD's Role in Implementing the Johannesburg Plan of Implementation Lead speakers: Berglind Ásgeirsdóttir, Deputy Secretary-General (OECD) Børge Brende (Norway)
		Adoption of the Ministerial Statement on Further Work at the OECD on Sustainable Development

4.	<i>Tuesday, 20 April 15h00</i>	<p style="text-align: center;">Session II</p> <p style="text-align: center;">Efficiency and Effectiveness: Improving Domestic Policies</p> <p style="text-align: center;">Lead speakers: Miklos Persanyi (Hungary) Laszlo Miklos (Slovak Republic)</p> <hr/> <p style="text-align: center;">Endorsement of the Draft Recommendation of the Council on Material Flows and Resource Productivity</p>
5.	<i>20h00</i>	<p style="text-align: center;">Working Dinner</p> <p style="text-align: center;">The Challenges Facing Environment Ministers in the Context of Policy Integration</p> <p style="text-align: center;">Lead speakers: Catherine Day (EC) Werner Wutscher (Austria)</p> <hr/> <p style="text-align: center;">Endorsement of the Draft Recommendation of the Council on the Assessment and Decision-Making for Integrated Transport and Environment Policy</p>
6.	<i>Wednesday, 21 April 9h30</i>	<p style="text-align: center;">Session III</p> <p style="text-align: center;">Partnerships: The Environment in a Globalising Economy</p> <p style="text-align: center;">Lead speakers: Altero Matteoli (Italy) Michael Leavitt (United States)</p>
7.	<i>13h00</i>	<p style="text-align: center;">Working Lunch</p> <p style="text-align: center;">Subsidies: Overcoming Obstacles to Reform</p> <p style="text-align: center;">Lead speaker: Jürgen Trittin (Germany)</p>
8.	<i>15h00</i>	<p style="text-align: center;">End of the Meeting</p>

ISSUES PAPER

SESSION I

ASSESSMENT AND REPORTING: ARE WE ON TRACK FOR IMPLEMENTING THE OECD ENVIRONMENTAL STRATEGY?

ISSUES FOR DISCUSSION

What measures do Ministers anticipate introducing or reinforcing in the near future to:

- *Further reduce greenhouse gas emissions at least cost, and adapt to the emerging impacts of climate change?*
- *Ensure the protection or sustainable use of biodiversity resources outside of protected areas?*
- *Improve energy efficiency and encourage the switch to low-emission fuels?*
- *Ensure that chemicals are used and produced in ways that minimise significant adverse effects on human health and the environment?*
- *Strengthen environmental education related to sustainable patterns of production and consumption?*

How can governments strengthen their accountability in delivering on national and international environmental commitments?

The *OECD Environmental Strategy for the First Decade of the 21st Century* was adopted by OECD Environment Ministers on 16 May 2001, and endorsed by the OECD Meeting of Council at Ministerial Level on 17 May 2001. It identifies five inter-linked objectives for enhancing cost-effective and operational environmental policies in the context of sustainable development. OECD countries identified the key challenges under these objectives, listed 71 national actions to address these challenges, and asked the OECD to support them by undertaking further work in a range of areas. The main issues highlighted in the *Strategy* are those identified in the *OECD Environmental Outlook* of 2001 as the environmental problems that most urgently need to be addressed to move toward the longer-term goal of ensuring environmental sustainability.

The background report for this meeting, *OECD Environmental Strategy: 2004 Review of Progress*, provides an overview of initial progress in implementing the *OECD Environmental Strategy*. Overall, it finds that countries have made a good start in a number of areas, but much more ambitious measures will be needed if the *Strategy* is to be fully implemented by 2010. Current policies are insufficient to adequately protect biodiversity or address climate change, and the decoupling of environmental pressures from economic growth in key sectors is proceeding too slowly. A number of obstacles to environmental policy reform are identified in the report – including both political obstacles, such as poor policy integration, and inadequate information – which will need to be faced. Increasingly, OECD Environment Ministers will have to work together with colleagues in other Ministries, colleagues in other countries, and with partners from business and civil society in order to ensure that appropriate environmental policies can be developed and implemented.

Objective 1. Maintaining the integrity of ecosystems through the efficient management of natural resources

Objective 1 of the *OECD Environmental Strategy* focuses on maintaining the integrity of ecosystems through the efficient management of natural resources. It highlights three priority areas for attention: climate change, freshwater, and biodiversity.

Although greenhouse gas (GHG) emissions are still growing in many OECD countries, most have reduced the GHG-intensity of their economic growth. Many have partnered with the private sector and other countries to create synergies in developing tools and new technologies to address climate change. About half of all OECD governments have carbon or energy taxes in place, a similar number have initiated formal voluntary approaches with industry to address climate change, and emission trading schemes are gaining importance.

Nonetheless, it is clear that additional measures will be needed if the objectives of the UN Framework Convention on Climate Change are to be met, let alone the targets agreed by most OECD countries under the Kyoto Protocol. While emission trading schemes, carbon-related taxes, and project-based flexibility mechanisms are only now starting to be introduced in OECD countries, they will be increasingly important components of future policy mixes to address climate change in order to keep costs to an acceptable level. Given that significant climate change impacts are expected in coming decades, despite current commitments to reduce GHGs, efforts will be needed by OECD countries to integrate adaptation to climate change into both domestic policies and development assistance programmes.

Most OECD countries have been able to manage their freshwater resources to ensure an adequate supply for human needs, including by expanding the use of water pricing mechanisms to manage demand. They have also given increased attention to social concerns about access to, and affordability of, water services for low income households. A greater challenge is the design and implementation of water management policies that better reflect ecosystem needs for freshwater, as well as human needs. OECD countries are committed to developing integrated water resources management plans by 2005, but will need to allocate substantial resources to ensure their proper implementation. While most countries show sustainable use of water resources at a national level, this may conceal unsustainable use in some regions (e.g. arid or semi-arid regions) and over some periods.

The worst polluted water bodies have been cleaned up in OECD countries, and point source discharges to surface water have been significantly reduced, especially from industrial and urban wastewater systems. However, less progress has been made in addressing pollution arising from agricultural run-off and other non-point sources of pollution. The majority of OECD countries do not yet meet the baseline quality standard for inland waters (suitability for fishing and bathing). Moreover, the trend in most OECD countries is towards a worsening of ground water quality, particularly from elevated levels of pesticides and nitrates and, in some countries, from salinisation.

Protected areas established to achieve biodiversity-related goals have reached 14.6% of the total land area for OECD countries, and some progress has been made in creating ecological networks with corridors to connect protected areas. The management of protected areas is in need of considerable improvement, however, and the establishment of more marine protected areas is urgently needed. Not enough is being done to slow habitat loss and fragmentation outside of protected areas or to apply the ecosystem approach to natural resource management, reflecting a lack of integration of biodiversity concerns in sectoral policies (e.g. agriculture, fisheries, forestry, tourism). The percentage of known species that are endangered continues to increase, and indicators of the total numbers of vertebrates in the wild continue to register declines. While a couple of the key international agreements to support sustainable fisheries management entered into force in the last few years, it is too early for their implementation to have slowed the continuing trend towards over-exploitation of fish stocks.

OECD countries are employing a wider array of policy instruments to provide incentives for the sustainable use and conservation of biodiversity, although total expenditures (public and private) on nature conservation is still limited. The use of market-based instruments (fees, charges, and environmental taxes) to promote sustainable use of biodiversity is increasing, as is the assignment of well-defined property rights. Examples include the use of individual transferable quotas in fisheries and development rights for wetlands conservation.

Objective 2. Decoupling environmental pressures from economic growth

Objective 2 of the *OECD Environmental Strategy* emphasises the need to decouple environmental pressures from economic growth in the context of working towards sustainable consumption and production patterns. It focuses on the priority sectors of agriculture, energy, and transport.

Some progress has been made in reducing the negative environmental pressures from agriculture, but much more is needed. Land use and soil loss have decreased, long-term reductions in on-farm biodiversity have slowed, and some decreases in greenhouse gas emissions from agriculture have occurred. However, water use in agriculture has risen, and levels of nutrient and pesticide run-off remain high in many countries. Many OECD countries have been addressing environmental impacts of agriculture through increased use of agri-environmental measures and cross-compliance requirements, whereby farmers have to meet environmental conditions to be eligible for support. However, market price support, output payments, and input subsidies – potentially the most environmentally harmful types of support – still account for 80% of total agricultural support.

A positive development has been the setting up in all OECD countries of a system of regulatory oversight to address the potential environmental and health impacts of genetically modified organisms (GMOs). This helps to ensure that the safety of GMOs is addressed at the global level.

The environmental and health effects associated with some major air pollutants from transport have been decreasing for some time in OECD countries. Emissions of most pollutants remain high, however, and limit-standards for air quality, and critical levels and loads for acidification, eutrophication, and tropospheric ozone, continue to be exceeded. Progress in noise reduction, the prevention of habitat fragmentation, and reducing run-off from transport is proceeding more slowly, due to continued expansion of road networks and overall transport activity; while carbon dioxide emissions from transport have continued to increase.

Regulatory timetables for meeting air quality goals and emission ceilings have been established through 2008 in all OECD regions, based on best available control technology. Many countries have been reforming their systems of transportation taxes and charges to better target environmental externalities and congestion and to foster shifts to less environmentally harmful transport modes; some have introduced or extended tram and light rail systems, and increased the capacity of inter-city passenger rail, to encourage greater use of public transport. Only a few countries have introduced targeted policies to reduce the trend towards urban sprawl and the related environmental impacts. In terms of reducing environmental risks from maritime transport, an action plan to combat substandard shipping was agreed by OECD countries in 2001; and in Europe an accelerated timetable to phase-out single-hulled vessels in the transport of fuel oil was agreed in 2003. Until this plan is fully operational, however, marine pollution from oil and hazardous material continues to be a risk. The environmental impacts of rapidly increasing air transport also need to be addressed urgently, with air transport already responsible for about

11% of transport-related energy consumption. Better integration of transport and urban planning, as well as the use of strategic environmental assessments in transport planning, is needed.

The efficiency of industrial, household, and commercial energy use has improved as a result of technical change, encouraged by a combination of price incentives, and regulatory and voluntary approaches addressed to buildings, appliances, and electric motors. However, much of the potential for further energy efficiency improvements remains untapped, including even low or no cost options. For example, standby power consumption, especially from consumer electronics, remains unregulated in most OECD countries.

Regarding energy production and transformation, market forces and regulatory reform have fostered fuel substitution from coal to gas in many OECD countries, with resulting environmental benefits. Fiscal policies, feed-in tariff compensation, tradable renewable energy certificates, and other policies have led to rapid growth in the development of renewable energy sources and greater use of combined heat and power, albeit from a low base. These developments have reduced the carbon intensity of energy production and further reduced the emissions of sulphur dioxide, particulate matter, and other air-borne pollutants. In addition, several new research initiatives have recently been launched on the viability and cost-effectiveness of carbon capture and storage. The combination of structural change and improvements in energy efficiency has led to some decoupling of energy use from economic growth. However, further improvements are not likely without substantially more ambitious policies and measures, including better internalisation of environmental costs in energy prices and hence an accelerated development and diffusion of cleaner technologies.

Objective 3. Improving information for decision making: Measuring progress through indicators

Objective 3 of the *OECD Environmental Strategy* highlights the need to improve information for decision making, including through the use of indicators to measure progress. In an effort to promote accountability, many OECD countries produce small sets of summary indicators designed for their communicative value, and some have undertaken environmental outlook exercises. The number of countries carrying out environmental data collection and dissemination work has increased, as has its thematic scope. Successes include the regular compilation of air emission inventories and the establishment of operational pollutant release and transfer registers (PRTRs) in about half of all OECD countries. Efficient web-based technologies are increasingly used for environmental information reporting and exchange. Impact assessments, cost-effectiveness studies and cost-benefit analysis are also becoming more prevalent. Agreements have been reached to extend the methodology of OECD environmental performance reviews to some non-OECD countries in the near future.

However, high quality, policy-relevant data and sectoral detail remain scarce in important areas such as biodiversity, economic aspects of environmental performance, and risks related to toxic contamination. The timeliness of data, as well as their comparability among countries and over time, still need considerable improvement. Also, many countries find it increasingly difficult to respond to expanding demands for environmental information, while maintaining continuity in core data activities.

Objective 4. The social and environmental interface: Enhancing the quality of life

Objective 4 of the *OECD Environmental Strategy* highlights the need to address the social and environmental interface. OECD countries have continued to make progress in this area, for example through work on a Globally Harmonised System for Classification and Labelling of Chemicals, testing and assessment of endocrine disruptors, development and revision of test guidelines for chemicals, and preventing hazards from major accidents. OECD countries have accelerated the processes for testing and assessment of high production volume chemicals. The Rotterdam Convention on Prior Informed Consent (PIC) for chemicals trade entered into force in February 2004, and the Stockholm Convention on Persistent Organic Pollutants (POPs) will come into force in May 2004, and. A few countries have introduced measures to limit the exposure to hazardous chemicals and air pollution of particularly vulnerable groups.

A few OECD countries have used some of the proceeds from environmentally related taxes to reduce labour costs, although the employment effects of this “double dividend” approach need to be assessed. Most OECD countries have used a range of measures including tariff adjustments, direct income support, and service vouchers to ensure access to and affordability of water, energy, and waste disposal services for low income households, while maintaining incentives for environmental improvements. Most OECD countries have made progress with regard to information, participation, access to justice in environmental matters, and environmental education. However, access to environmental information has been uneven when held by ministries other than environment or by semi-public bodies.

Objective 5. Global environmental interdependence: Improving governance and co-operation

Objective 5 of the *OECD Environmental Strategy* emphasises the need to improve governance and co-operation in light of global environmental interdependence. International environmental governance has been strengthened by the entry into force of a number of multilateral environmental agreements (MEAs). OECD countries have ratified an even larger number of environmental conventions, not all of them yet in force. They have also supported measures to strengthen the control or review mechanisms of several existing conventions, and to improve co-operation among the secretariats of MEAs. Economic agreements also increasingly include environmental elements – for example, regional and bilateral investment and trade agreements, and the 2001 Declaration of WTO Ministers (the Doha Development Agenda). Little progress has been made, however, in ratifying a number of international agreements on liability for environmental damage.

Member countries of the OECD Development Assistance Committee (DAC) have made available some USD 50-55 billion per year in the form of official development assistance (ODA) since 1998, with about USD 5-6 billion provided to environmentally related activities. DAC members are also working to mainstream responses to environmental concerns, such as climate change, into their core development assistance activities. Despite increases in foreign direct investment, resource mobilisation is currently insufficient to meet internationally agreed goals such as the Johannesburg commitment on access to drinking water and sanitation.

OECD countries agreed in 2003 on common approaches for incorporating environmental considerations in the provision of export credits. Several OECD countries have since strengthened environmental impacts assessment requirements for projects benefiting from credit guarantees, and taken other steps to ensure transparency in integrating environmental objectives into project planning and financing decisions. They have also promoted implementation of the OECD guidelines for multinational enterprises, including their environmental components. The practice of implementing environmental management systems and issuing environmental reports has grown within the business sector of OECD countries, although few businesses engage in systematic environmental cost accounting or associated reporting, and even fewer make use of third-party certification of their reports.

OECD support for the implementation of the *Strategy*

Progress has been made in implementing most of the National Actions listed in the *OECD Environmental Strategy*, but further effective measures will be needed if all are to be achieved by 2010. A number of obstacles to policy reform remain, including the need to better integrate environmental concerns in economic and sectoral policies, to address the fear of a loss of competitiveness or of social impacts, to improve scientific understanding, and to collect reliable and comparable environmental information. The OECD will continue to support member countries in implementing the *OECD Environmental Strategy* through analytical work on how to overcome these obstacles, and by monitoring country progress through environmental indicators and country environmental performance reviews.

WORKING LUNCH

OECD'S ROLE IN IMPLEMENTING THE JOHANNESBURG PLAN OF IMPLEMENTATION

ISSUES FOR DISCUSSION

How can OECD best support the Johannesburg Plan of Implementation, including through the CSD process?

On which issues might OECD most usefully focus in order to facilitate achievement of the water-related targets in the Johannesburg Plan of Implementation – public-private partnerships, innovative financing mechanisms, capacity building, others?

The Johannesburg Plan of Implementation was adopted at the World Summit on Sustainable Development in September 2002. One challenge for OECD Environment Ministers is how best to support the achievement of its environmental component.

The Johannesburg Plan of Implementation

The Johannesburg Plan of Implementation (JPol) builds on the achievements since the 1992 Conference on Environment and Development, and aims to expedite the realisation of the remaining goals. It reaffirms the Rio Principles, Agenda 21, and the Programme for the Further Implementation of Agenda 21. Through it, countries commit to achieving internationally agreed development goals, including those contained in the Millennium Declaration, adopted at the Millennium Summit (New York, September 2000).

Work in support of the JPol is intended to promote the integration of the three pillars of sustainable development – economic development, social development and environmental protection. As such, poverty eradication, changing unsustainable patterns of production and consumption, and protecting and managing the natural resource base of economic and social development are identified as “overarching objectives” and “essential requirements” for sustainable development. The JPol also highlights the important role of good governance, within each country and at the international level, for sustainable development. It points to sound environmental, social, and economic policies, responsive democratic institutions, the rule of law, anti-corruption measures, gender equality, and an enabling environment for investment as the bases for sustainable development at the domestic level.

The UN Commission on Sustainable Development (CSD) has been mandated to contribute to advancing Agenda 21 and the JPol. To this end, the work of the CSD will be organised in a series of two-year “Implementation Cycles”, each focusing on a thematic cluster. The sequence of thematic clusters is presented below, with the first cluster to be addressed in 2004-2005 focusing on water, sanitation, and human settlements. In the first year of each cycle, a review session will address the state of implementation of Agenda 21 and the JPol. The review session will include an exchange of regional experiences, dialogues with experts, including scientific experts, and sharing of best practices and lessons learned. The review session's results will include identification of constraints and obstacles, as well as possible approaches and best practices for the implementation of Agenda 21 and the JPol. This will lay the basis for a policy session in the second year that will take policy decisions on practical measures to expedite implementation of commitments identified in the relevant thematic cluster.

Multi-year programme of work for the UN CSD

Cycle	Thematic clusters
2004/2005	Water, Sanitation, Human Settlements
2006/2007	Energy for Sustainable Development, Industrial Development, Air Pollution / Atmosphere, Climate Change
2008/2009	Agriculture, Rural Development, Land, Drought, Desertification, Africa
2010/2011	Transport, Chemicals, Waste Management, Mining, A Ten Year Framework of Programmes on Sustainable Consumption and Production Patterns
2012/2013	Forests, Biodiversity, Biotechnology, Tourism, Mountains
2014/2015	Oceans and Seas, Marine Resources, Small Island Developing States, Disaster Management and Vulnerability
2016/2017	Overall appraisal of implementation of Agenda 21, the Programme of Further Implementation of Agenda 21 and the Johannesburg Plan of Implementation

Cross-cutting issues: poverty eradication, changing unsustainable patterns of consumption and production, protecting and managing the natural resource base of economic and social development, sustainable development in a globalizing world, health and sustainable development, sustainable development of small island developing States (SIDS), sustainable development for Africa, other regional initiatives, means of implementation, institutional framework for sustainable development, gender equality, and education.

OECD and the Johannesburg Plan of Implementation

When OECD Finance and Environment Ministers met in May 2001, they recognised sustainable development as an overarching goal for the OECD and its member countries. They endorsed key policy recommendations from a report on *Policies to Enhance Sustainable Development*, and asked the OECD to carry out follow-up work in several areas:

- Develop agreed indicators with a view to incorporating them into economic, social and environmental peer reviews and filling data gaps;
- Identify how policy obstacles to reform could be overcome, particularly through the better use of market-based instruments and reducing environmentally-harmful subsidies;
- Analyse further the social dimensions of sustainable development;
- Provide guidance for improved policy coherence and integration.

A horizontal project on sustainable development was set up to undertake this work in the period 2001-2004, under the guidance of an Ad Hoc Group on Sustainable Development. OECD also contributed to the World Summit on Sustainable Development (WSSD) in 2002 and to the preparation of the JPol. As the 2001-2004 horizontal project comes to an end, member countries are discussing work priorities and possible institutional arrangements for further OECD work on sustainable development. Given the variety of other institutions supporting implementation of the JPol, OECD is concentrating its efforts in areas where it has a comparative advantage.

Various activities carried out in the OECD already support the JPol. Given its breadth of activities, OECD is well-placed to contribute to discussions on most of the thematic clusters and cross-cutting issues that will be addressed in the years to come. Various mechanisms exist within OECD that could help prepare such contributions, including: analytical reports, good practices, and policy guidance arising from work in various OECD Committees as well as from activities that cut-across different policy sectors (e.g. Agriculture and Environment, Tax and Environment, Development Co-operation and Environment); environmental, economic, and other peer review

processes; and activities specifically dedicated to sustainable development; notably, the Global Forum on Sustainable Development¹ and the Roundtable on Sustainable Development².

CSD 12 – water, sanitation, and human settlements

The JPoI recognises that protecting and managing the natural resource base of economic and social development are essential for sustainable development. The first thematic cluster to be addressed by the CSD following the WSSD will focus on water, sanitation, and human settlements. Several water-related targets were identified in the JPoI, namely: to halve by the year 2015, the proportion of people who are unable to reach or to afford safe drinking water as outlined in the Millennium Declaration and the proportion of people without access to basic sanitation; and to develop integrated water resources management and water efficiency plans by 2005.

The Millennium Summit also established the target that, by 2020, there should be a significant improvement in the lives of at least 100 million slum dwellers. This is a major challenge in many developing countries, and is closely linked to issues of water supply and sanitation.

Within OECD's environment programme, including the outreach programme supported by the Centre for Co-operation with Non-Members, several activities are underway related to water supply and sanitation, mostly focused on financing.

Some of the main messages emerging from this work include the following:

- Many developing and transition economies will find it difficult to achieve the JPoI targets. In rural and peri-urban areas, the challenge is to increase the share of the population with adequate access to water supply and sanitation; in urban areas, the challenge is also to halt the deterioration of water systems and to improve water quality.
- Achieving the targets will require far-reaching reforms of water governance, and a substantial increase in financial resources. Decentralisation to the appropriate level of government of responsibility and means are important, as is a clear separation of the policy, regulatory, and service provision functions.
- There are no "magic bullets" for financing water infrastructure. Governments should blend available financial sources so as to maximise their leverage effect and overall impact. Finance planning tools developed by the OECD and others can assist these efforts and should be more widely used.
- User charges need to increase to cost-recovery levels to ensure the financial viability of the water sector, while addressing social and political concerns. Targeted measures that benefit poor and vulnerable groups are more efficient and environmentally effective than maintaining generally low tariff levels. However, social protection measures employed in OECD countries often cannot be easily transferred to developing countries if suitable social policies and institutions are not in place, underscoring the importance of capacity building for strengthening domestic good governance.

1. The OECD Global Forum on Sustainable Development is one of several Global Forums established within OECD's outreach programme to facilitate dialogue with non-member countries on specific issues.

2. The Roundtable on Sustainable Development housed at the OECD provides a forum for high-level representatives to discuss difficult issues on the sustainable development agenda in a frank and informal setting.

- Public budgets have an essential role in financing water infrastructure, particularly capital investments. Well-designed public investment programmes can contribute to achieving water and sanitation targets at low cost, and can help to leverage additional funds from other sources. Independent performance assessments can help to enhance their credibility.
- More could be done to help municipalities to access savings vested in local private capital and financial markets for investments in the water sector, for example, by blending capital from local markets with finance provided on preferential terms to create revolving funds for lending to municipalities. Lessons from relevant experiences should be examined and used to help guide further initiatives of this type.
- Private sector participation in the water sector has declined globally in recent years. Private operators are increasingly a source of management and technical know-how, rather than providing investments in water utilities in emerging and developing economies. Further incentives could be given for private sector participation in the water sector, including through public-private partnerships, balanced by appropriate regulatory safeguards against the risks associated with natural monopolies.

SESSION II

EFFICIENCY AND EFFECTIVENESS: IMPROVING DOMESTIC POLICIES

ISSUES FOR DISCUSSION

How can market-based instruments be applied more systematically to improve the effectiveness and economic efficiency of environmental policies? What are the major obstacles to their use, and how can they be overcome?

What measures are being implemented or envisaged to maximise synergies and avoid conflicts and duplication between different policy instruments in policy mixes to address environmental problems?

What measures can be used at the domestic level to cope with competitiveness constraints, while maintaining the environmental effectiveness of policies? What measures can be used to address the major equity issues related to the implementation of environmental policies?

How can systematic and transparent policy evaluations be used more effectively in policy design, implementation, and reform?

The *OECD Environmental Strategy* stresses that environmental policy design must take into account three important criteria: economic efficiency, environmental effectiveness, and social equity.

Ensuring economically efficient environmental policies

Once an environmental goal is fixed, a cost effectiveness analysis should be used to identify the least cost mechanism to achieving that goal. To this end, the *OECD Environmental Strategy* calls for a wider use of market based instruments. Thus, National Actions listed under Objective 1 of the *Strategy* give “priority *inter alia* to market-based instruments such as subsidy removal and green tax reforms and emission permits or quotas” for the management of freshwater and recommend countries “establish policies aimed at recovering the full cost of water services provisions and the external cost associated with water use”. In the area of biodiversity, the *Strategy* suggests that countries “enhance the use of economic instruments”. Similar National Actions are listed for transport, energy, agriculture, and climate change.

Compared with command and control regulations, economic instruments can provide increased flexibility, reduce or minimise compliance costs (static efficiency), and stimulate technical innovation (dynamic efficiency). Environmentally related taxes are in use in all OECD countries to a varying extent, and several countries have implemented comprehensive “green tax reforms”. Tradable permits are applied to several policy areas (air pollution, water pollution, and natural resources management) in a growing number of countries, while new systems of CO₂ trading are in place or planned at the national level in a few countries and at the regional level for the European Union. There is ample evidence of the economic benefits and environmental effectiveness of these instruments (see box). An ongoing OECD survey of the reaction of individual firms to different policy instruments indicates that the tendency to employ innovative integrated pollution control techniques is far greater with taxes than it is with command and control instruments. In the area of natural resources and biodiversity management, an increasing number of economic incentives are used, such as individual transferable quotas in fisheries, transferable development rights for wetlands, charges for the use of sensitive lands, and river salinity trading schemes. Whilst the need for a more consistent use of economic instruments is now widely recognised, there still remain a number of obstacles to their use, including concerns regarding their impacts on income distribution and competitiveness.

Examples of the environmental effectiveness and economic efficiency of economic instruments

In the *United States*, the cost savings of a SO₂ cap-and-trade programme were estimated to amount to USD 350 million the first year of implementation. Annual SO₂ emissions were reduced significantly – by 6.3 million tons from the programme's introduction to 2001.

In *Iceland*, the implementation of individual transferable quotas (ITQ) in fisheries management has helped to overcome the resource crisis faced during the 1970s, and enabled the re-establishment of major spawning stocks to sustainable levels. At the same time, the efficiency of the fisheries has increased dramatically under the ITQ management system, with profits (before tax) 200% higher in 2002 than their 1984 level.

In *Denmark*, the sulphur tax reduced emissions by 34 000 tons between 1996 and 2000. The tax on non-hazardous waste reduced waste sent to municipal sites by 26% over 1987-1996, and waste to smaller and private waste sites by 39% over 1990-1996. Recycling also increased considerably – by 77% for paper and cardboard and by 50% for glass. Industrial waste, however, increased by 8%.

In *Korea*, a volume-based waste disposal fee was introduced in 1995. It has resulted in a 20% decrease in the volume of household waste generated per capita between 1994 and 2002, a 43% reduction in the volume of waste landfilled or incinerated, and a 146 % increase in recycling.

In *Germany*, an ecological tax reform introduced in 1999 has resulted in a 10% reduction of CO₂ emissions from transport over the period 2000-2003.

The *Swedish* sulphur tax introduced in 1991 has led to a fall in the sulphur content of oil-based fuels of more than 50% beyond the legal standards. Thus, the sulphur content of light oils has now fallen below 0.076% (i.e. less than half the legal limit of 0.2%). The tax is estimated to have reduced emissions of SO₂ by 80% compared with 1980 levels.

Achieving environmental effectiveness

Due to the often complex nature of environmental problems and the large number of actors that contribute to them across the production and consumption chain, a mix of policy instruments is often needed to tackle the problems. As a result, some form of policy mix is used to tackle most, if not all, environmental problems. A well-designed policy mix can be both environmentally effective and economically efficient. For instance, while a “cap and trade” system of tradable permits can ensure the achievement of the environmental goal at minimum compliance cost, in the presence of uncertainty with respect to abatement costs, it may be preferable to combine it with an emission tax which sets an upper limit on the cost to firms. Similarly, in markets where there are information failures, environmental taxes can be effectively combined with eco-labelling schemes and other information-based measures. In situations where environmental impacts differ greatly depending upon the location of emission, the combination of tradable permits with location-specific performance standards can be a useful policy mix.

The environmental policy instruments toolkit

CATEGORY	EXAMPLES
Command and control	Licenses/permits; ambient quality standards; emissions standards; process standards; product standards; prohibition bans.
Economic instruments	Charges; taxes; tradable emission permits; tradable quotas; environmental subsidies; deposit-refund systems; performance bonds; non-compliance fees; resource pricing; user fees; environmental subsidies.
Liability, damage compensation	Strict liability rules; compensation funds; compulsory pollution insurance; extended producer responsibility.
Education and information	Education campaigns for the general public; diffusion of technical information; publicity of sanctions for non-compliance; eco-labelling schemes.
Voluntary approaches	Unilateral commitments; public voluntary programmes; negotiated agreements.
Management and planning	Environmental management systems; zoning; land use planning.

However, most policy mixes have evolved as the result of a succession of *ad hoc* decisions to adapt to evolving challenges and political demands. Only in a few cases have combinations of policy instruments been deployed in a fully articulated and coherent manner. If not carefully designed, policy mixes can result in inefficiencies, redundancy (for instance, by targeting the same externality twice), and high administrative costs and complexities. For example, retaining some elements of direct regulations even after the introduction of tradable permits or environmentally related taxes may undermine the potential efficiency gains of the economic instruments. Similarly, providing financial subsidies to encourage compliance with direct regulations can result in significant economic distortions and strategic behaviour among firms. The precise role of each instrument used, and its relationship with the other instruments which “target” the same environmental problem, needs to be evaluated with care. Furthermore, to ensure policy coherence, existing market and intervention failures that exacerbate the environmental problem – such as environmentally harmful subsidies, distortionary tax provisions, and inefficient, costly and contradicting regulations – should be removed.

The use of voluntary approaches (in particular negotiated agreements and public voluntary programmes) has developed significantly over the last decade with the main objectives of reducing the regulatory burden for both the private and public sectors and to provide greater flexibility in meeting environmental objectives. A recent OECD study notes that voluntary approaches that are introduced in the context of policy mixes can achieve their stated goals and improve economic efficiency at the enterprise level. This same study notes, however, that there is a risk that, in terms of environmental improvements, they may achieve only what would have been achieved in a “business as usual” scenario. Therefore, in designing voluntary approaches, it is important to make sure that the objectives set represent real progress in achieving environmental performance goals. The OECD work also questions the economy-wide efficiency of voluntary approaches, in particular due to a lack of provisions to minimise total abatement costs for the economy as a whole and because of high transaction costs. Therefore, voluntary approaches should also be carefully designed to overcome these shortcomings.

Addressing international competitiveness concerns

Environmental policies can affect production costs with consequences on the competitiveness of specific sectors or industries. The perceived negative impacts on international competitiveness of the most affected – and often most polluting – sectors is often a major concern. It is, however, important to distinguish clearly between the competitiveness of individual companies and sectors of the economy, and that of the whole economy in general. Competitiveness will have a different meaning at each level. A company or sector is competitive if it is able to compete in international markets, with a satisfactory rate of return. For a country as a whole, the concept of competitiveness is more complex. At the economy-wide level, correcting for market failures – for example, by introducing taxes to reflect the costs of environmental externalities – provides an improvement in overall economic productivity. While it may represent increased costs for one firm or industry, it may lead to reduced costs for others. When evaluating a particular policy, the effects on the economy as a whole should be considered, not just the effects on individual sectors. With all policy reforms, there are likely to be winners and losers in the short term. These impacts can be addressed through flanking measures – for example, to smooth the transition for affected workers to new employment opportunities – but their existence should not hamper the realisation of the longer-term economy-wide environmental and economic efficiency benefits that can be achieved through implementing the policy changes.

Environmental taxes often face strong opposition because of concerns about their impact on competitiveness, despite the fact that well-designed environmentally related taxes should minimise the overall costs of achieving the environmental goal, and hence increase the competitiveness of the economy as a whole. Command and control regulations also have an impact on costs and prices, and thus on competitiveness, and may be more costly to the economy as a whole than economic instruments. Their effect on individual firms or sectors is simply less transparent. Unfortunately, measures used to mitigate the alleged competitiveness impacts of economic instruments often run counter to the environmental objectives themselves. The OECD database on environmentally related taxes records some 1 500 exemptions and special provisions for these taxes to protect certain economic sectors. These can defeat the very purpose of the taxes. One of the main conclusions of recent OECD work is that “countries concerned with competitiveness implications of adjusting certain environmentally related taxes on a unilateral basis, could consider possible concerted policy action and changes, decided and implemented at the national level, but within a framework which provide a multilateral dialogue”. More generally, support measures designed to protect certain economic sectors can result in economic inefficiencies and cause environmental harm.

Ensuring socially equitable environmental policies

Overcoming the obstacles to efficient and effective environmental policies also requires that the distributive implications be adequately addressed. Environmental policies can be regressive, in the sense that their costs could fall disproportionately on poorer segments of the population. They can have a direct impact on income, in relation to the structure of household expenditure (this is particularly the case for energy and transport related taxes), and an indirect impact when the taxation of production inputs affects the price of consumers goods. Regressive impacts occur, for example, when price increases affect products that are consumed in large quantities by lower income households. There is, however, little empirical evidence as to how large such impacts may be. Although all policy instruments, including direct regulations, can have distributive implications, taxes are singled out in particular due to the relative transparency of their impacts. Similar concerns are voiced for proper resource pricing, for example for water.

Several options are available to address the possible adverse impacts of environmental policy on income distribution, depending on the environmental policy instrument used. The options available will vary depending on whether or not there is a potential for revenue raising (as in the case for economic instruments such as taxes or auctioned permits) and, if so, how this revenue is recycled (for instance, through reductions in other tax rates, reductions in social security contributions, subsidies for low income groups). The two sets of options generally considered are mitigation and compensation. In the case of environmental taxes, mitigation measures consist of a reduction in the rate of the tax to alleviate the tax burden on specific segments of the population. This can take many forms, including reduced tax rates for low-income groups or on specific mass-consumption and indispensable commodities (e.g. heating fuels), manipulation of tariff structures, or tax exemptions below certain income levels. The outcome of such measures can be, however, a weakening of the desired environmental effect of the tax, and an increase in the administrative complexities of applying the tax. Compensation measures, on the other hand, are corrective measures outside of the environmental policy instrument design itself, such as lump sum compensation (calculated on the basis of average tax payments per household), tax refunds, or subsidies for heat insulation. For example, energy taxes are partly repaid to household and/or businesses in several OECD countries in the form of subsidies for energy saving investments or expenditures.

Cost-benefit analysis and policy evaluation

Systematic evaluation is required to better plan, monitor, and improve environmental policies. In addition, it encourages transparency and accountability within public administration, as well as being an important element of performance management. This includes both *ex ante* policy evaluations, such as cost-benefit assessments before the policy is put in place, as well as *ex post* evaluations to verify the effects of the policy after it has been implemented. Policy makers need information on the benefits, costs, and effects of alternative options for addressing a particular environmental problem before making policy decisions. After the policy is in place, assessing its actual impacts can guide decisions to amend the policy and provide valuable information for future policy decisions. A formal system of policy evaluation can ensure efficient policy design, implementation and reform

However, systematic and independent policy evaluations – particularly *ex post* evaluations – remain relatively rare. OECD countries are progressively developing and using cost-benefit assessments, although in most cases environmental policies are fixed without the benefit of such assessments. The systematic use of environmental policy evaluations should be further encouraged and, more importantly, integrated with the full policy design, implementation, and reform process, as a means to ensure good governance.

WORKING DINNER THE CHALLENGES FACING ENVIRONMENT MINISTERS IN THE CONTEXT OF POLICY INTEGRATION

ISSUES FOR DISCUSSION

How can Environment Ministers best contribute to sustainable development efforts and a more ambitious environmental agenda?

What lessons can be drawn from experiences with inter-ministerial policy co-ordination and integration mechanisms?

What are the challenges to ensuring that local governments efficiently contribute to the achievement of national environmental objectives?

While the *OECD Environmental Strategy* provides clear directions for environmentally sustainable policies in OECD countries, implementing such policies at the national level can present government-wide challenges. Increasingly, environmental policies need to be developed in close co-ordination with sectoral or general economic policies.

One driver of this increasing move towards policy co-ordination and integration has been the changing focus of environmental policy itself. As effective regulations have successfully addressed large point source pollution, the focus of attention for OECD governments has been shifting to more complex issues, such as diffuse and transboundary pollution. Accordingly, the emphasis of environmental management efforts has been evolving from a reactive approach (e.g. pollution abatement), toward a preventive approach (e.g. cleaner technology, economic incentives), often employing mixes of policy instruments to influence the behaviour of multiple actors in the relevant sectors.

A second driver of policy co-ordination and integration is the strong influence of sectoral policies on environmental conditions and trends, for example the impact of agricultural support measures on rural biodiversity. The impacts of sectoral policies can either enhance or undermine the benefits of environmental policies.

International discussions on sustainable development have served as a third driver for greater co-ordination and integration of environmental and other policies. While the sustainable development paradigm has boosted the overall profile of environmental concerns on government agendas, the integration of environmental objectives with economic and social objectives is challenging for governments. In addition, environmental policy-making has had to adapt to shifts in the global power structure, including the increasing influence of regional decision-making bodies and large industries.

The barriers to improved policy co-ordination and integration to achieve environmental objectives vary among OECD countries. In practice, the main obstacles encountered are perceived distributive implications, technical and political feasibility, and fear of losses of economic competitiveness. These obstacles often explain the distance between intentions, actions, and the results achieved.

Inter-ministerial integration

OECD Environmental Performance Reviews have shown that member countries have sought to meet the challenge of co-ordinating and integrating environmental and economic and sectoral policies in a variety of ways, including institution-based and market-based mechanisms. Significant progress has been made in the industry, energy, transport, and agriculture sectors, although some challenges remain. Progress has been uneven in fisheries, forestry, mining, construction, and tourism. Countries have also gained useful experience with co-ordinating environmental, social, trade, development aid, and fiscal policies. With globalisation, the challenge is to find new alliances to address the problems, not only through concerted actions among various parts of government, but also with civil society.

Concerning institution-based integration, OECD countries focus on various levels of decision-making depending on the administrative culture: strategic development, national planning efforts (including environmental planning), sectoral investment programmes, budgeting, and project design (e.g. environmental impact assessment). The specific institutional structures created to facilitate inter-ministerial co-operation also vary among countries. Some countries allocate the role of sustainable development co-ordination to a particular ministry, while in others the Prime Minister or President's office takes it on. Some countries have a specific ministry for addressing environment issues, others combine environment with related concerns in the same ministry. Concerning market-based integration, OECD countries have applied a range of measures to internalise externalities and to address market distortions which undermine both economic efficiency and environmental effectiveness.

Integration among government levels

Depending on countries' institutional arrangements, decisions and actions involve a different mix of government levels (national, intermediate, local). In general, local governments have become more important as partners in moving towards national environmental objectives, in particular because they often control or supervise more than half of the national pollution abatement and control expenditure. They also manage the delivery of key environmental services – such as water supply, waste water collection and treatment, and municipal waste management – and play an important role in spatial planning, nature protection, and some natural resource management issues. In this context, policy co-ordination and integration among all levels of government has become an important component of achieving environmental objectives.

SESSION III PARTNERSHIPS: THE ENVIRONMENT IN A GLOBALISING ECONOMY

ISSUES FOR DISCUSSION

In which areas will strengthened co-operation with non-OECD countries or with development co-operation agencies best support environmental goals, and how might this co-operation be achieved?

What kinds of partnership arrangements with the private sector are likely to yield the most significant gains for environmental policy, and how can these partnerships be realised? How can the positive role played by civil society in the development and implementation of environmental policy be encouraged?

How can OECD countries ensure that their trade and investment policies lead to positive environmental outcomes world-wide? How can OECD countries ensure that implementation of domestic environmental policies is consistent with existing trade and investment rules?

The *OECD Environmental Strategy* emphasises the need to improve management of the environmental effects of globalisation, and to ensure that these effects are taken into account in international governance related to trade and investment. It also recognises that action to control global and regional environmental pressures will only be successful if accompanied by strengthened environmental performance in non-OECD countries. Much of this improved performance will depend on steps toward good governance, on building human and institutional capacity, and on mobilising resources – including financial resources – for development purposes.

Trade and investment activities provide a solid foundation for achieving environmental and social goals, and are therefore a critical element of the path toward sustainable development. To ensure this potential is realised, the level of mutual support among environmental, development, and economic policies needs to be strong. This message of mutual supportiveness was reinforced in the 2001 Doha Development Agenda, which includes selected environmental issues in the negotiating agenda.

The 2002 World Summit on Sustainable Development (WSSD) emphasised the need for greater flows of foreign direct investment for achieving sustainable development and eradicating poverty, and recognised the major role that trade can play, when appropriate environmental policies are in place. More specifically, it highlighted the need to continue to enhance the mutual supportiveness of trade, environment, and development across a wide range of related activities, and at all levels (national, regional, and multilateral).

The continuing gap between developed and developing countries points to the need for a dynamic and enabling international economy that is supportive of international co-operation if the momentum for global progress towards sustainable development is to be maintained, let alone increased. This is particularly true in the areas of finance, technology transfer, debt, and trade. Effective participation of developing countries in global decision-making is also crucial.

The successful linking of environment policies to the globalising economy will depend on considerable co-operation between environment ministries and various other partners. Of particular importance are co-operation with non-OECD countries (including links with development co-operation agencies); co-operation with non-governmental actors (especially the private sector and civil society); and co-operation in the context of trade and investment arrangements. OECD environment ministries will clearly have only partial responsibility when

dealing with topics that involve these types of co-operation. However, they can play an important catalytic role in promoting the kinds of co-operative action that will lead to environmental, economic, and social improvements – and that thereby serve the goal of sustainable development.

The WSSD clearly recognised the importance of partnerships. One of the main outcomes of that Summit was agreement on more than 200 multi-actor initiatives aimed at contributing to the implementation of sustainable development. These initiatives are intended to serve as complements to, rather than as substitutes for, inter-governmental commitments. Through these “Partnerships for Sustainable Development”, like-minded governments, stakeholders, and inter-governmental organisations have agreed to work together on particular issues, including the specific results that are expected, and the resources to be contributed by each participant.

Partnerships with non-OECD countries

Trade and investment flows involving developing countries have significantly increased in recent years, and are likely to continue to do so in the future. These flows contribute to reducing poverty – an underlying cause of environmental degradation in many situations. They also provide additional means to pay for the prevention or clean-up of pollution in developing countries, and to finance environmental management infrastructure or capacity building.

However, these environmental improvements will only occur if suitable environmental policies accompany the economic reforms. Development co-operation policies and international financial institutions both have key roles to play in achieving this goal, in particular by helping developing countries strengthen their own environmental policies and by increasing the institutional capacity needed to effectively implement these policies. Assisting non-OECD countries in gaining access to appropriate environment-related technologies is also important.

Under some circumstances, OECD environmental policies may also inhibit market access – and thus development opportunities – for developing country exporters. Environmental policies should always seek to avoid unnecessary barriers to trade and investment activity, while still achieving the basic environmental goals they were designed to address. On the other hand, policies addressing environmental concerns in OECD countries may also create new market opportunities for non-OECD countries, for example through organic agriculture or eco-tourism, and these opportunities should be fully explored.

Partnerships with non-governmental actors

The establishment of public-private partnerships and other forms of partnership within stable and transparent national regulatory frameworks, involving all concerned stakeholders, and where the performance of public institutions and private companies is appropriately monitored, are all important elements of the search for sustainable development.

OECD countries have different traditions of civic involvement in environmental policy debates, but most have recently taken steps to increase that involvement. Tools such as public consultation, *ex ante* environmental impact assessments, and accountability mechanisms are used to varying degrees. Both the private sector and civil society groups have important roles to play in the development and implementation of environmental policy. Building a climate of mutual trust and common purpose is an essential part of this process.

Opportunities for partnerships with the private sector are of particular relevance in environmental governance. There are over 60 000 multinational corporations, with more than 800 000 affiliates abroad, and they are driving the global expansion of investment flows. Domestic firms also have strong interests in opportunities for foreign trade. Formal regulation by government is one, but not the only, tool for promoting improved environmental performance by these corporations. More informal approaches are also increasingly in evidence, including voluntary codes of conduct, shareholder activism, and environmentally conscious funds. Public-private partnerships, where the government and the private interest each play a specific role in addressing a given environmental problem, also play an important role in some situations.

The non-regulatory approaches mentioned above seek to influence environmental outcomes largely through market-driven forces, exploiting the particular expertise of both government and private sector assets. One example of this approach is the OECD Guidelines for Multinational Enterprises – a government effort to encourage (voluntary) private sector practices that are compatible with, amongst other things, environmental objectives. Another example is the OECD Common Approaches on Environment and Officially-Supported Export Credits, which seeks to improve evaluation of the environmental impacts of infrastructure investments supported by OECD-based Export Credit Agencies.

Partnerships with trade and investment ministries

Open, equitable, rules-based, predictable, and non-discriminatory multilateral trading and financial systems can benefit all countries and contribute to sustainable development. Enhancing the capacities of developing countries to benefit from liberalised trade opportunities – including the delivery of targeted, trade-related technical assistance, capacity building programmes, and increased opportunities for market access – will systematically improve the relationship between trade, environment, and development. Stronger regional trade and co-operation agreements, consistent with the multilateral trading system, will also contribute to this goal.

OECD countries can contribute to this process by enhancing the mutual supportiveness of trade, environment, and development through actions at all levels. They can also encourage the WTO to act as a forum for identifying and debating the developmental and environmental aspects of trade negotiations; support efforts in the Doha Development Agenda to promote sustainable development, enhance the environment, and reform environmentally-harmful subsidies; and explicitly encourage co-operation on trade, environment, and development issues, including the provision of technical assistance.

Environment ministries also have a role to play in helping to ensure that environmental policies are designed and implemented in a way that considers trade and investment rules – especially those related to non-discrimination and national treatment.

WORKING LUNCH (21 APRIL 2004) SUBSIDIES: OVERCOMING OBSTACLES TO REFORM

ISSUES FOR DISCUSSION

What are the main political and economic obstacles to reforming environmentally harmful subsidies, and how could they be overcome?

What measures can be used to address social concerns in reforming or phasing out environmentally harmful subsidies, for example to ensure a smooth adjustment and to address equity and employment implications?

How can OECD best support member countries in their reform of environmentally harmful subsidies?

At the 2001 Meeting of the OECD Council at Ministerial level, Ministers asked the OECD to undertake work in four specific areas to support sustainable development. One of the activities requested was analytical work on how to overcome obstacles to policy reforms, in particular to the better use of market-based instruments, and to the reduction of environmentally harmful subsidies.

The *OECD Environmental Strategy*, adopted by environment ministers in 2001 and endorsed by the OECD Council at Ministerial level, also underlines the challenge posed by environmentally harmful subsidies (see box). Several recent international conferences and declarations, such as the Johannesburg Plan of Implementation agreed at the World Summit on Sustainable Development, also call for subsidy reform.

Environmentally harmful subsidies: a recurrent theme in the *OECD Environmental Strategy*

Objectives 1 and 2 of the *OECD Environmental Strategy* include a number of "National Actions" to reform or phase out environmentally harmful subsidies.

Objective 1 (climate change)

- National Action 3: "Create incentives for emission reductions through technological and social innovation, giving priority *inter alia* to market-based instruments such as subsidy removal and green tax reform..."

Objective 2 (agriculture)

- National Action 4: "Phase out or reform those agricultural policies and subsidies that have environmentally damaging effects before 2010 and according to an agreed timetable."

- Further work requested of the OECD: "...monitor and evaluate effects of agricultural policies and subsidies and suggest alternative policies and approaches to improve environmental performance."

Objective 2 (transport)

- National Action 1: "Work towards an effective and full internalisation of environmental costs of transportation through the use of effective instruments such as taxation, charges, reform of environmentally harmful subsidies and other incentive-based approaches."

Objective 2 (energy)

- National Action 1: "Remove environmentally damaging subsidies and tax provisions in the energy sector and internalise externalities associated with energy use and production."

In this context, the OECD is carrying out a programme of work aimed at identifying and evaluating environmentally harmful subsidies, and analysing the policy options for phasing out or reforming these subsidies. This work builds, in particular, on long-standing OECD work and expertise in the area of agriculture and fisheries support measures.

Subsidies are pervasive

Available data indicate that subsidies are pervasive across OECD countries, with wide variations between countries. Every year, OECD countries provide subsidies amounting to about USD 400 billion to different economic and often environmentally sensitive sectors.³ Due to the lack of data on subsidies to energy and manufacturing, this figure is most likely an under-estimate. Government subsidies are often designed to promote regional or rural development, achieve energy security, support employment and incomes, and in some cases, environmental protection. Protecting economic sectors from international competition and facilitating adjustment is also a reason frequently advanced for subsidies. While policies providing subsidies are introduced for such various social or economic reasons, they can distort prices, affect resource allocation decisions and change the amount of goods or services produced and consumed in an economy. In turn, they can have unintended negative effects on the environment that are either ignored or require other subsidies and measures to counteract the effects. The OECD has initiated analytical work to assess the impacts of such subsidies, and has developed a “checklist” designed to identify those subsidies that can cause environmental harm.

Agriculture is the sector for which an extensive and long-standing data set has been developed, in particular by OECD. Agricultural subsidies are particularly high. In 2002, estimated total support to agriculture amounted to USD 318 billion, representing 1.2% of GDP in OECD countries, and of which USD 235 billion represented support to producers. Some of these support measures contribute to increasing agricultural production, and thus the use of land and water resources. Ranking agricultural policy measures according to their potential impacts on commodity production shows that market price support, output payments (per output unit produced) and input subsidies (such as fertiliser, pesticide, water, and energy subsidies) produce the greatest impact. In general, other things being equal, the more a policy measure provides an incentive to increase production of specific commodities, the greater is the incentive for monoculture, intensification (greater yields), or bringing environmentally sensitive land into production, and the higher is the pressure on the environment. During the 1990s, many OECD countries began to take steps to reduce and restructure their agricultural support policies in an effort to reduce overproduction and trade distortions, and to encourage more environmentally sound use of land, soil, and water. However, the pace of these developments has been modest, and subsidies remain high in some OECD countries and for some commodities, which may cause adverse effects on the environment. The share of market price support, output payments and input subsidies, which are potentially the types of agricultural support exerting the greatest pressure on the environment, has decreased marginally since the mid-1980s, but they still account for nearly 80% of the producer support.

3. Subsidies include a variety of support measures such as direct payments, price support, subsidised input prices, tax breaks, and preferential interest rates.

Available estimates indicate that subsidies to fisheries in OECD countries have declined from USD 6.8 billion in 1996 to USD 6 billion in 1999, representing 20% of the value of landings. Some of these subsidies support research and development, surveillance, and management services, which may contribute to the sustainable management of fish resources. The remaining subsidies may encourage the development or maintenance of over-capacity in fishing fleets, and the over-exploitation and eventual exhaustion of fish stocks. However, the relationship between subsidy removal and better conservation and management of the fish stock is not straightforward.

Water use is subsidised in many different forms, including water abstraction charges that do not cover supply costs, external costs, and resource rents; subsidies to irrigation water; and subsidised water prices for households and industry. These support measures inflate demand, for water, undermine the financial viability of the sector, and add to environmental pressures through the depletion of water resources, and the pollution and salinisation of soils. In certain circumstances, appropriately designed agricultural support measures can provide positive externalities.

Subsidies for energy production in OECD countries are intended mainly to protect domestic producers and to maintain employment in given sectors. Up-to-date empirical data on energy related subsidies are lacking, but estimates range between USD 20-82 billion per year, with a large share going to support coal production, a polluting fuel.

Industry is also subsidised, although again it is difficult to obtain detailed data of the levels and types of subsidies in place. Environmentally harmful effects can arise when these subsidies increase production levels beyond the social optimum, encourage the use of certain raw materials or energy, or result in a lock-in of the use of inefficient technologies. Not all industry subsidies are environmentally harmful, however, for example support to research and development can be used to support the development of “clean” technologies.

With respect to transport, the concept of a subsidy or support measure is more complex. One broad definition compares the total revenue of the sector with the total social costs of each transport mode (for example, including accidents, noise, air pollution, greenhouse gas emissions, etc.). According to this definition, revenues from fuel taxes and specific road user charges in most European countries generally cover the costs of road infrastructure. For some countries, however, spending on infrastructure exceeds revenues, thus resulting in a subsidy. Another approach compares the price paid for using transport infrastructure with the marginal social cost associated with a specific transport mode. Recent estimates indicate that, in urban areas, the prices associated with using cars and trucks under this approach are generally much too low – it is estimated that to cover the full social costs, prices would need to increase by up to 150% in certain urban areas.

Indirect subsidies can arise from specific environmentally harmful tax provisions, such as tax rate variations or exemptions. For instance, coal is taxed in only five OECD countries, and in these countries the largest coal users benefit from many tax exemptions and rebates. The transport sector also benefits from many indirect subsidies, for example through the widespread availability of tax exemptions and rebates for diesel fuel used in road transport, farming, and fishing in many countries, and the tax exemption for kerosene used in commercial aviation.

Not all subsidies are environmentally harmful. For example, subsidies to public transport can provide significant environmental benefits, and financial assistance can be given to environmentally beneficial investments or other measures. Such support measures may still, however, turn out to be economically inefficient and trade distorting, thus contradicting the polluter pays principle. The potential environmental impacts of subsidies in sectors like agriculture or energy should be assessed through an “environmental policy filter” like the one embodied in the OECD checklist, which also considers the environmental protection measures in place to control the environmental impacts of the economic sectors.

Overcoming the obstacles to subsidy reform

Subsidies have a long and complex history. They have been introduced over decades, often under political pressure or without a long-term strategic vision, and for a variety of economic and social purposes. The obstacles to their reform or removal are high. Information barriers include both a lack of reliable and comparable subsidy data and a general lack of public awareness of the magnitude and effects of subsidies. Institutional barriers include vested interests that may be affected if institutions in charge of administering subsidy programmes are to be discontinued, rent seeking, loss of revenues obtained from protective tariffs, fear of a loss of sectoral competitiveness, vote-seeking by politicians through subsidies, and a fear of political instability if reform is undertaken.

Subsidies are often designed for social reasons, for example to protect poorer segments of the population, maintain regional employment, or support rural development. However, they may work against sound environmental management, for instance when subsidised water prices result in a depletion of water resources. Subsidies to water users through low water prices can also limit the financial resources available for infrastructure maintenance or expansion. The social implications of removing such subsidies are not straightforward – while higher prices for water or energy can be socially regressive, in practice it is often the wealthiest segments of society which are the main beneficiaries of subsidised access to these natural resources. In many cases, much or all of the support given may not, benefit the initially targeted beneficiaries. For example, it is estimated that as little as one-quarter of agricultural market price support benefits farmers, while the rest leaks away to land owners and input suppliers.

The trade dimension of subsidies is also important. In the context of current WTO negotiations under the Doha mandate, governments are discussing substantial reductions in trade distorting domestic support programmes to agriculture. The Doha Ministerial Declaration also states that participants shall aim to clarify and improve WTO disciplines on fishery subsidies, taking into account the importance of this sector to developing countries.

The reform or removal of environmentally harmful subsidies faces many challenges, given the often complex trade-offs between economic efficiency, social concerns, trade distortions, and environmental protection. The OECD has established a clear track record in providing reliable subsidy data and analysing the effects of subsidies in key economic sectors. Assessing the environmental impact of environmentally harmful subsidies is technically complex, but the recent development of an OECD checklist will help in this regard. Addressing this complexity is an essential step to pave the way for the reduction or removal of these environmentally harmful subsidies. Considerable work needs to be done to develop a clearer picture, including through expanding the collection of data on a systematic and comparable basis, and to develop effective analytical tools.